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The influence of color on anthropomorphic food packaging: Parents' purchase intention, the
attractiveness of a product and children's gender

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Table of Contents

Abstract.....	3
1. Introduction.....	4
<i>1.1 Problem Statement.....</i>	<i>4</i>
<i>1.2 Aim of the study.....</i>	<i>5</i>
2. Literature Review.....	6
<i>2.1 Anthropomorphism.....</i>	<i>6</i>
<i>2.2 Application of Anthropomorphism as a Marketing Strategy.....</i>	<i>7</i>
<i>2.3 How does anthropomorphism affect families' purchase intention?.....</i>	<i>8</i>
<i>2.4 Color and Its Marketing Implications.....</i>	<i>10</i>
<i>2.5 The relevance of Color to this study</i>	<i>12</i>
3. Method.....	14
<i>3.1 Pilot Test.....</i>	<i>14</i>
<i>3.2 Participants.....</i>	<i>15</i>
<i>3.3 Procedure.....</i>	<i>15</i>
<i>3.4 Measures.....</i>	<i>16</i>
4. Findings.....	17
5. Discussion.....	19
<i>5.1 Anthropomorphism.....</i>	<i>19</i>
<i>5.2 Orange Color.....</i>	<i>20</i>
<i>5.3 Colors and Children's Gender.....</i>	<i>22</i>
<i>5.4 Limitations and Future Research.....</i>	<i>22</i>
6. Conclusion.....	23
7. References.....	24

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Abstract

This paper approaches the anthropomorphism marketing technique. It has been covered by different researches in product design and in different industries, such as the automobile industry. However, none of them applied it to the food packaged products, in FMCG industry. In addition, only a few studies mention it along with the variation of color. This paper studies how the anthropomorphism and colors influence consumers' purchase intention and the attractiveness of products. For this purpose, this study was based on actual facts: Milaneza anthropomorphic packaging. It was carried out using different versions of the anthropomorphic package, with four different colors – green, orange, blue and pink. Firstly, the 259 respondents had to evaluate the attractiveness of a non-anthropomorphic and two anthropomorphic packages (green and orange). Secondly, they had to arrange all packages according to their acquisition preference. The main findings suggested that anthropomorphism influences product attractiveness; however, there is no clear evidence to suggest that it changes consumers' purchase intention or that sex-typed colors and children's gender are correlated, in pasta category, when using anthropomorphic packages.

Keywords: anthropomorphism; color; packaging; consumer behavior.

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1. Introduction

We live in a world where the competitiveness has gained strength, mainly due to the rise of private-label goods (Scientist Live, 2013). The number of brands that launch products to satisfy the same kind of need has increased, mainly within the fast-moving consumer goods industry. Products have become commodities. This has created a very competitive environment, in which brands fight in order to outstand their products in the marketplace, to survive and maximize profitability (Alalauri, Thunström & Fristedt, 2016). Private labels have expanded (Forbes, 2014), increasing the number of products that offer the same functionalities, which makes consumers even more demanding, and willing to search for something else in the products, such as appealing features (Kazanjian, 2013). Here, packaging plays an important role (Kazanjian et al., 2013), proving to be a key differentiator in similar products (FRPT, 2013). As Mininni (2016) states, “packaging delivers brands into consumers’ hands like nothing else can”. It is tangible, real and easy to analyze. It can not only reinforce the brand image in consumers’ mind, highlighting their values and culture, but it can also foster consumers’ desirability concerning that product, by developing an emotional connection with it (Kazanjian et al., 2013). As the consumer interacts with the product through the packaging, Mininni (2016) supports that the first marketing initiative should be the packaging. It should be part of the DNA of brands by creating a unique visual and verbal language. Besides, companies should pay attention to the differences that exist across customers, for example, in terms of tastes and income levels, and take the risk in creating different versions of the same product, in order to satisfy the needs of different target segments (FRPT, 2013). This allows brands to leverage the value delivered to consumers, overcoming their competitors, enhancing the preferentiality of their products amongst consumers, and forcing their rivals to create a bewildering range of products, in return. (Mininni, 2016; FRPT, 2013).

1.1 Problem Statement

Amongst the packaging characteristics there is design and color. Within design there is the anthropomorphism technique, which has revealed itself as an important tool to make package design fun and to improve the image of products. According to Rauschnabel and Ahuvia (2014), brands are more appealing to consumers when they are categorized as people. Moreover, anthropomorphism leads them to create a stronger relationship with brands. For these reasons, it is advisable for marketers to humanize their products as a strategy of differentiation, in order to foster brand love (Rauschnabel & Ahuvia, 2014). Thus, it is important to understand the impact that anthropomorphism might have in consumer's behavior as a differentiator factor.

Regarding the color, it influences brand personality (Labrecque & Milne, 2012) and can determine the way that people perceive products and brands. Each color has a specific meaning, which leads customers to build different perceptions about the products. For instance, orange is associated with appetite stimulation; blue is associated with greater perception of crunchiness, when the product is creamier, than red (Chylinski, Northey, & Ngo, 2015) and sex-typed colors – blue and pink – are associated with gender – feminine and masculine, respectively. Therefore, when it comes to the process of choosing the package color, it is crucial to know how brands want to be perceived by consumers as well as the image and message that they intend to transmit. A right combination between anthropomorphism and color may be a determining factor for the success of a brand.

1.2 Aim of the study

This research was undertaken not only to understand how anthropomorphism can influence purchase intention, package evaluation and sensory evaluation, but also to learn if package color influences consumers' purchase intention concerning anthropomorphic packages. Firstly, a literature review was conducted in order to introduce the subject and

summarize the research on the matter. Secondly, the study was based on actual facts: Milaneza anthropomorphized packages. Finally, a market research was carried out in order to obtain the study findings, which culminated in several conclusions and suggestions for future researches.

2. Literature Review

2.1 Anthropomorphism

To gain a deep understanding of the analysis and conclusions comprised in this paper, it is crucial to understand the concept of anthropomorphism. Anthropomorphism is defined as the act of applying human-being characteristics, such as human traits, emotions and ambitions, to nonhuman entities, such as animals (Kiesler, 2006), spiritual deities, technology (Epley, Waytz, & Cacioppo, 2007), natural phenomena or objects. To better understand this concept, it is useful to distinguish it from personification, due to their similarity. In fact, anthropomorphism is a type of personification. However, personification is defined as a figure of speech that makes non-human beings to be portrayed in a way that we feel that they are able to act like a human being, creating imagery. Regardless of being similar, anthropomorphism differentiates itself from personification, mainly due to their purposes. The first one intends to make an animal or object behave or appear as human-beings, while the second one intends to create imagery by applying human-being characteristics to them.

According to Epley et al. (2007), there are two main factors that influence the anthropomorphism: effectance and sociality. The first one refers to the motivation and ability of an object to affect one's environment, interacting effectively with it. This is strongly related with the consumer's needs in terms of closure and their desire to control. Therefore, the more is the desire to control, the more is the willingness of the consumer to use the anthropomorphizing process to predict and understand nonhuman objects, due to their uncertainty-avoidance personal characteristic (Puzakova; Kwak & Rocereto, 2009). Hence, referring to the behavior of brands, anthropomorphism enables their continuous understanding,

by increasing individual's desire for effective functioning (Puzakova et al., 2009). This improves the understanding of brand behavior, achieved by customers, through the anthropomorphizing process, and fosters brand success, due to a higher proximity with customers. Thus, customers would be more willing to buy the product of that brand, creating positive monetary payoffs for the company. The second – sociality – relates to social links that people tend to develop while living in a community, in other words, it can be seen as the motivation for social contact, connection and approval from other cohabiting agents (Epley et al., 2007). Therefore, through anthropomorphizing products, customers could meet their needs in terms of belonging and chronic loneliness, that is, their persistent feeling of lacking social inclusion. This factor is more related with human values and intrinsic needs of well-being, since it influences their mental health. In this regard, sociality motivation leads consumers to find clues of social connections in products, which leads them to their anthropomorphization. So, the more the needs in terms of belonging and chronic loneliness, the more is the individual willing to anthropomorphize the products (Puzakova et al., 2009)

Moreover, the anthropomorphism acts as a conductor in the obtainment of a higher quality level perceived in products, leading customers to develop a stronger relationship with them. Besides, when consumers anthropomorphize brands, they become more plausible and familiar to them, fostering the emotional attachment. (Rauschnabel et al., 2014).

2.2 Application of Anthropomorphism as a Marketing Strategy

Marketers who intend to strengthen the consumer-brand bond, should apply the anthropomorphism to their products, as a marketing strategy, so that consumers begin to consider brands to be viable partners rather than making-money units (Fournier 1998). Therefore, consumers can see brands as humans and, consequently, establish strong relationships with them, by creating a win-win situation, in which there are several repeated exchanges between the two parties (Puzakova et al., 2009; Fournier et al. 1998). Thus,

anthropomorphism enables brands to get closer to their consumers, allowing them to create a stronger emotional attachment to their products. This would result in a competitive advantage for brands, by outperforming the perception of product quality. Therefore, people develop a deeper relationship with products that express human characteristics, since they associate the product with themselves through the integration of the brand into the consumer's self-identity (Rauschnabel et al., 2014; Puzakova et al., 2009). In this regard, product designers play a crucial role in product success, since they must carefully develop the shape of products, in order to display attractive emotional expressions. Hence, they may foster brand and product preference, by creating congruency between consumers' self-concept and the personality of brands perceived by them. This would result in brand preference, increasing sales (Puzakova et al., 2009; Landwehr, McGill & Hermann, 2011). This can be applied to both packaged and non-packaged products, since consumers reveal a stronger emotional attachment to the anthropomorphized brands, as aforementioned (Rauschnabel et al., 2014). As Landwehr, McGill and Herrmann (2011) state "an appealing combination of emotional expressions in a design conducive to anthropomorphizing not only fosters liking but also pays off in monetary terms."

By focusing on the human face, when it is part of a product design, the consumer's attention is automatically activated, especially when it expresses emotional facial expressions (Landwehr, 2015). An example of that is the fact that people prefer car fronts with a smile (Landwehr et al., 2011). Moreover, if marketers anthropomorphized their brands, through packaging and advertisement, they would increase brand love (Rauschnabel et al., 2014). For all of these reasons, anthropomorphism technique can be a tool of differentiation between brands that sell the same type of products, making products more appealing to customers, even if they don't usually purchase them.

2.3 How does anthropomorphism affect families' purchase intention?

According to a previous study, children used to anthropomorphize more frequently than adults in order to acquire knowledge about non-human entities (Triantos, Plakoyiannaki, Outra, & Petridis, 2016). As a result, this practice is specially applied in the packaging of products intended for children. Additionally, anthropomorphism is straightly related with the color and fun of the packaging, which makes products more appealing to children, significantly increasing their intention to purchase.

According to Mau, Schuhen, Steinmann and Schramm-Klein (2016), children's purchase intention is based on the guidance transmitted by their parents over the years, structuring their way of thinking at the moment of purchase. This learning process of acquiring purchase competencies occurs during the early years of children's life, becoming more effective when they practice competent purchase decisions together. Thus, it is very useful that parents train them through the evaluation and analysis of several information and products before making the final purchase decision. However, despite playing a very important role in the development of children's way of thinking, when it comes to making a purchase decision, this technique loses strength when they are at the Point-of-Sale (POS), since there is a huge diversity of stimuli that distract and influence them, in the supermarket environment (Mau et al., 2016). The learning that they have acquired from their parents until then becomes a small parcel of all information that they have to process and internalize at the POS. Here, they not only have to process the supermarket environment stimuli, but also their own motivations and feelings at that moment (Mau et al., 2016). For instance, according to a study performed by Cunningham & Macrae (2011), the colors of goods directed to children are, mainly, blue and pink, that is, sex-typed colors. Those that aim to attract girls are, in most cases, pink; and the ones that intend to attract boys are blue. This makes children assimilate an association of colors which leads young boys to prefer rooms with blue items, while young girls prefer pink, for example.

Therefore, they are pressured to acquire products that better fit their gender, as a way of social inclusion. This may change children's purchase intention, since even if a young boy likes a certain pink item, he cannot purchase it only due to color association. Thus, color can be an obstacle for some customers to acquire certain products. These associations have an impact on children's behavior (Cunningham et al., 2011) and, therefore, on family purchase intentions as a whole. According to Cunningham and Macrae (2011) "pink and blue color cues were sufficient to trigger the activation of gender-related knowledge". Consequently, they lead people to associate feminine characteristics with someone who purchases pink items and masculine characteristics with someone who purchases blue items, without even knowing their personality. So, even if parents transmit certain guidelines to their children on this subject, at the purchase moment they take into account other factors, such as: the color of goods and its meaning (Cunningham et al., 2011) as well as their own motivation and feelings (Mau et al., 2016).

Although children are attracted by anthropomorphized packaging products, because they are fun and colored, as aforementioned, there are no previous researches evaluating the impact of anthropomorphism and color on the packaging, simultaneously.

From the literature review carried out until now, it becomes relevant to study a research question:

RQ1: Do anthropomorphized packages influence purchase intention, package evaluation and sensory evaluation?

2.4 Color and Its Marketing Implications

Over the years, color has been used as a marketing tool, in different dimensions, such as: the creation of a certain store atmosphere, the improvement of consumer's experience, the boosting of websites appearance, in order to keep customers engaged with the brand, allowing them to create a certain brand recognition through color and, therefore, some familiarity with it

(Elliot & Maier, 2014; Labrecque, Patrick, & Milne, 2013). In fact, color acts as an identity card of brands, as part of their personality, becoming a distinctive characteristic amongst competitors. It also influences the perception that consumers have of each brand. According to Labrecque and Milne (2012), certain colors led people to create a perception of the identity of brands, being able to “either increase or decrease the perception of a particular personality trait”. For example, blue logos make people increase the perceived brand competence and black logos make the brand perceived to be more sophisticated than the grayscale version of the same logo, increasing both excitement and competence (Beneke, Floyd, Rono, & Sherwood, 2015). To the same extent, purple is more associated with spontaneous response and brand loyalty than orange (Beneke et al., 2015). Furthermore, color has more marketing implications, which include brand positioning and communication. In fact, it is usually extended to product packaging and advertisement (Labrecque et al., 2013), in order to create brand coherence and, thus, familiarity and recognition. However, color seems to be more important in triggering associations in people’s mind than brand personality perceptions. (Labrecque et al., 2012)

According to Bottomley and Doyle (2006), brands that intend to promote the functionality of their products, should use the blue color, while those that intend to promote a social-sensory image should use red. This means that marketers have to be aware of color meanings for consumers, at the moment of determining the color of their brand, in order to transmit the right message and perception of its personality. If the wrong color is chosen, it will be difficult to change it at a later stage, since consumers’ mind will get confused. This would lead to a loss of brand DNA, except for cases where there is the intention of rebranding, which should be communicated in a proper way. An actual case that illustrates the importance of color can be found in the chocolate market. Beneke, Floyd, Rono and Sherhood (2015) found out that purple is the most appealing color for consumers when it comes to considering a chocolate bar; and orange is the color that less attracts them, which strongly affects the financial results of

brands that use these colors, positively and negatively, respectively. This can be explained through the fact that purple is the leader of the color category, which can influence people's perception of colors. Despite of focusing on the chocolate market, this study may be extended to other products, since people tend to evaluate product alternatives based on the characteristics of the category leader.

Color not only is used by brands as a marketing tool for differentiation but also by retailers to persuade consumers into spending more money in their purchases. Therefore, color can also explain and change the purchase intention of retailers' clients. As Babin, Hardesty and Suter (2015) found out, blue interiors motivate people to do more shopping and increase their purchase intention in comparison with orange interiors.

Thus, it is evident that colors are of major importance for the success of brands and are used as a distinctive marketing technique, not only for product brands but also for retailers, leading them to success. Several researches have been discussing this matter. However, none of them embraced the color technique and anthropomorphism as a way of getting the attention of consumers and, thus, influence their purchase intention.

2.5 The Relevance of Color to this study

This study was based on Milaneza farfalle pasta, which was launched by the brand this year, as an innovative campaign directed to children aged 5 to 12. Milaneza applied anthropomorphism to the packaging of this new pasta in order to attract the youngest target, making both children and parents happy. Therefore, the purpose of this study is to understand how this new product can change the purchase intention of families and if it is directly related with the color of the anthropomorphized packaging. To this end, four different colors were chosen: green, orange, pink and blue. Firstly, the green color was chosen not only for being the color of the original product, transmitting the brand identity, but also for being the color chosen by Milaneza to these new packages. Secondly, pink and blue colors were chosen to examine if

sex-typed colors influence families' purchase intention: are families with little boys/girls more willing to acquire this new product if the anthropomorphized packaging is blue/pink? As the literature review suggests, this is a relevant issue to be analyzed in this study. Finally, orange was chosen for being associated with the stimulation of appetite; for being associated with spontaneous purchasing, call to action (subscribe, buy or sell), vibrancy and fun (Chavan-Patil 2012; KissMetrics, 2014); and, for being considered "more appropriate for elated joy expressions than for panic fear expressions" (Dael, Perseguers, Marchand, Antonietti, & Mohr, 2015).

Previous researches already studied these four colors in different contexts that can be generalized and useful to support the choosing of colors. According to Jonauskaite, Mohr, Antonietti, Spiers, Althaus, Anil and Dael (2016), blue to green-blue hues are the most preferred colors, fostering highly pleasant ratings on those products, while others, like orange and yellow, are the least preferred, fostering highly unpleasant ratings; and green is neither liked nor disliked. In fact, there is a general dislike for yellow and the most favorite color is the blue hue. Moreover, in their study it would also be concluded that people prefer lighter and more colorful hues, which supports the colors selected to conduct the present study, as an alternative to white, black or grey hues.

Concerning pink and green colors, these are known not only for enhancing a happy face recognition but also for conveying positive information (Gil & Le Bigot, 2014). Thus, they "facilitate the information processing, especially for emotionally congruent facial expressions (i.e., faces expressing happiness) and interfere with that for the emotionally incongruent facial expressions (i.e., faces expressing sadness)" (Gil et al., 2014). This could influence the way families interpret and process the packaging "face", evaluating it more favorably when it is anthropomorphized. These authors also state that associations that consumers apply to colors could have two origins: evolutionary or cultural, that is, green could be related either for being

associated with natural environmental features, such as fertile growth, or for being culturally embedded in environmental cues, such as the green street lights. Concerning pink color, this is more related with cultural learning, as mentioned above. In addition, both green and blue are well-regarded by people, since they are present in nature (e.g blue sky and water, green foliage and vegetation) (Elliot et al., 2014), which enhances the interest in studying these colors within anthropomorphism concept. Moreover, blue backgrounds are also known for their more pleasure-evoking properties, in comparison with other colors such as yellow, for instance, leading to a higher perceived susceptibility in contrast with less appealing colors (Wauters, Brengman, & Mahama, 2014). One cannot affirm that these characteristics and facts happen in all contexts, as an absolute true, since it also depends on the object and emotions and feelings displayed by the consumer at the purchase moment. However, they are positive facts that promote interest in their studying.

On the basis of the literature review, three hypotheses were stated:

H1a: The orange color positively changes the intention to purchase Milaneza pasta.

H1b: The orange packaging color makes the product more attractive.

H2: Parents are more willing to purchase products with colors that best fit children's gender.

3. Method

In order to address the question research, an observation, acting as a pilot test, was firstly conducted. Then, a questionnaire was built to cross-check the information provided by customers with the observation findings (Annex I).

3.1 Pilot Test

The observation took place at the Continente supermarket, in Leiria Shopping, during the weekend (November 11th and 12th, 2016), from 9:00 p.m. to 10:45 p.m. and from 11:00 a.m. to 01:00 p.m., respectively, since this is the schedule chosen by the majority of people to go shopping. It was also carried out at El Corte Inglés supermarket to extend the study to other

social classes. This was undertaken on a Saturday (November 19th, 2016) from 04:30 p.m. to 06:30 p.m. Therefore, it was possible to observe behaviors of people from all ages as well as people with the lowest and the highest levels of income. The person who observed consumers played the role of a mystery shopper, allowing consumers to behave naturally, without feeling the pressure of being watched. This technique is called disguise observation and reduces the bias of results (Malhotra & Birks, 2007). The mystery shopper used an observation grid in which all relevant consumers' behaviors were recorded, in order to identify specific behavior patterns (Annex II and III.). Therefore, it was possible to collect information in a real scenario, mainly regarding consumer's movement and behavior when shopping for pasta, which allowed to verify whether they were planning to purchase pasta or were buying on impulse; whether they asked for any opinion to choose the pasta package and, finally, to understand the main influencing factors when choosing a package to buy. The main findings suggested that the patterns of consumers are standardized, and that they do not ponder when choosing a pasta brand. They either select the retailer's brand, in the case of Continente, or the original packaging of Milaneza or Nacional, in the case of El Corte Inglés, attaching more importance to price, pasta type and quality than to packaging design.

3.2 Participants

The 5-minute questionnaire was autonomously filled in by a total of 330 respondents. However, only 259 were considered in this analysis, as they were the only ones to conclude it (51.74% male), aged 18 to 78 ($M = 32.5$). During its distribution, a particular care was taken, in order to balance the number of respondents with and without children.

3.3 Procedure

The online questionnaire was built on the Qualtrics program. It was distributed via Internet - through Facebook and e-mail platforms – and in person at a study center and a school.

In the first section, respondents were asked to report personal information (i.e., gender and age, shopping habits) in order to understand their lifestyle. Here, they were confronted with questions on their behavior as consumers, such as: whether they were loyal to a certain brand of pasta and whether they used to take into account children's opinion when shopping. Milaneza brand was only introduced after these questions, reducing the bias of results. In the second section, they were evaluated in terms of their attitude and relationship with this brand. In the third section, a non-anthropomorphized packaging of Milaneza showed up on the screen. Here, respondents were requested to evaluate its attractiveness and their purchase intention toward that product. Afterwards, this procedure was replicated to the green and orange versions of anthropomorphized packaging. Thus, it was possible not only to evaluate the consumer's perception concerning the anthropomorphism technique in itself, but also the influence of color. These packages differed from each other, merely due to the changes applied to the packaging color of the product (Labrecque et al., 2012), through Photoshop. Finally, in the last section, respondents were confronted, in a random order, with four different packages of Milaneza pasta: the original non-anthropomorphized packaging, the original anthropomorphized packaging (green), and the blue and the pink versions of the anthropomorphized one. Here, only the purchase intention was evaluated. To define the color hue of each modified packaging, the original anthropomorphized packaging color hue (H) was taken into account, making them similar in terms of brightness (B) and saturation (S) (Green: H = 69, B = 83, S = 98; Orange: H = 32, B = 81, S = 96; Blue: H = 201, B = 93, S = 80; Pink: H = 349, B = 98, S = 47). The pink color had a significant lower level of saturation, since it was the color tone that best fitted the green packaging, in terms of visual appearance.

This questionnaire was written in Portuguese to simplify its completion. Therefore, it is relevant to point out that three researchers carried out a translation and a back-translation

procedure (Brislin, 1986) to assure consistency between the English and the Portuguese versions of the questionnaire.

3.4 Measures

To assess respondents' attitude toward Milaneza brand, they were requested to evaluate their level of agreement, on a 4-point Likert scale (in which 1 = Definitely disagree and 4 = Definitely agree) (Pecheux & Derbaix, 1999). Regarding their relationship with the brand, they were requested to select how certain emotions described their feelings for the brand, using a 7-points Likert scale (in which 1 = "Describes poorly" and 7 = "Describe very well") (Thomas, MacInnis & Park, 2005).

A 1-7 point Likert scale (in which 1 = very unattractive, 7 = very attractive) (Yan, Sengupta, & Wyer, 2014) was used to evaluate attractiveness, and to evaluate the purchase intention, three scales were used: likely/unlikely, probable/improbable and possible/impossible (Mackenzie, Lutz, & Belch, 1986).

In the last section, people were asked to arrange images according to their purchase intention, in which 1 = the most preferred package and 4 = the least preferred package. This measure was based on the previous scales of purchase intention; however, it was modified to best suit this study.

4. Findings

The analysis was conducted in SPSS Statistics 24. For each hypothesis, the most suitable statistical method for each measure was applied. According to the Kolmogorov-Smirnov test results, none of the dependent variables followed a normal distribution. Besides, the samples had different dimensions. Therefore, distribution-free tests were used to analyze data, since these are the most proper methods to apply under these circumstances (Marôco, 2014).

To evaluate how orange color influences the purchase intention of Milaneza pasta, a Cochran's Q-test was applied to each measure: plausibility, possibility and likelihood, in order

to analyze how they differ across the three different packages (non-anthropomorphic, green and orange). Regarding plausibility, the results showed that there were significant differences between the two measures (plausible/implausible) across the three packages ($Q(2) = 16.125$; $n = 253$; $p < .001$). Using a confidence level of 95%, the post-hoc analysis of multiple comparisons revealed that these differences occurred between the non-anthropomorphic package and the orange anthropomorphic one ($p = .001$ and $p_{aj} = .002$) as well as between the non-anthropomorphic packaging and the green anthropomorphic one ($p < .001$ and $p_{aj} = .001$). The same happened to possible/impossible ($Q(2) = 13.488$; $n = 254$; $p = .001$) and likely/unlikely measures ($Q(2) = 33.435$; $n = 253$; $p < .001$), between the same pairs of packages. For the first measures, the first pair had a p-value of .002 and an adjusted p-value of .006; and the second pair of packages had a p-value of .001 and an adjusted p-value of .004. For the second measures, both pairs revealed a p-value and an adjusted p-value lower than .001.

These results refute H1a by demonstrating that neither the anthropomorphism technique nor the orange color change the purchase intention of Milaneza pasta, since the non-anthropomorphic package has higher levels of plausibility, possibility and likelihood (36.84%, 35.94% and 39.96%, respectively).

Regarding the orange packaging attractiveness, the ANOVA test of Kruskal-Wallis showed that there was, at least, one package where the attractiveness was significantly different from the other ones ($p = .001$). By performing a multiple comparison of means, it was possible to learn that it was the non-anthropomorphic one, for having a distribution of attractiveness significantly different from the green ($p < .001$) and the orange ($p = .039$) anthropomorphic packages. When analyzing the attractiveness means, it was possible to conclude that the anthropomorphism marketing technique makes the product more attractive ($M_{\text{green non-anthropomorphic}} = 4.16$; $M_{\text{green}} = 4.65$; $M_{\text{orange}} = 4.40$). However, the mean of the green

package was higher than the orange one, refuting the hypothesis of the orange packaging color to be considered as the most attractive product.

Finally, to evaluate if the willingness of purchasing pink and blue pasta packages was the same between parents with only one or more daughters and parents with only one or more sons, a Mann-Whitney test was performed. This test showed, with 95% of confidence level, that the two different groups of parents have the same willingness to acquire the pink ($p = .697$) and blue ($p = .118$) packages, contradicting the initial expectations which pointed towards the purchasing of the package color that best fitted their children's gender. Moreover, evaluating their willingness to purchase the four packages, all together, by using the same test, it was possible to conclude that there is no significant difference in their willingness to acquire blue, pink, green ($p = .561$) and non-anthropomorphic ($p = .117$) packages. However, as shown in Table 1., the non-anthropomorphic one reveals to have the lowest mean, proving that respondents preferred it. (1 = the most preferred package; 4 = the least preferred).

Packages	Non-Anth/	Green Anth/	Blue Anth/	Pink Anth/
Means	1,75	1,94	2,59	2,86

Table 1. Means of packages evaluated from 1 to 4.

5. Discussion

5.1 Anthropomorphism

The present study was based on three main purposes: to verify whether anthropomorphism would change the purchase intention of customers; to find out if the orange color would also change their purchase intention and the product attractiveness; and, finally, whether parents with only one or more daughters and parents with only one or more sons would be more willing to purchase a pink and blue package, respectively. The results suggest that anthropomorphism, as a marketing technique, makes products more attractive. However, it does

not change the purchase intention of customers. Moreover, when comparing the different packages, all together, the most preferred product to acquire is in the green anthropomorphic package. From the observation performed, it was also possible to verify that the customer behavior patterns are strongly standardized, that is, when people go shopping, they already know what they want to buy. In the pasta category, at Continente supermarket, they immediately select the retailer's brand for being the cheapest one, even if Milaneza is sold at a promotion price. In El Corte Inglés, they select Milaneza brand and others, such as Nacional, due to their higher income levels. However, they choose the non-anthropomorphic package, without even looking for package alternatives. This may be explained by several factors: customers have developed a stronger relationship with the traditional packaging of this brand, through repeated purchases, which leads them to continue purchasing it; the product is wrongly located on the shelf, so customers do not notice it; the hue of the green anthropomorphized package is different from the hue of the traditional package, so, part of its identity is lost, preventing some customers from connecting it with the non-anthropomorphic package; finally, each country has its own culture. For instance, "Napolese women traditionally wear more colorful clothing than men do" (Bortoli & Maroto, 2001), and these traditions change from country to country, and person to person, what changes culture patterns of consumer behavior.

Thus, it is advisable that companies use anthropomorphism as a marketing strategy of differentiation, in competitive industries, such as FMCG. This allows companies not only to achieve different market segments, by creating different versions of the same product, but also to lead their competitors to do the same (FRPT, 2013). On the one hand, this would be beneficial for large companies, with a broaden portfolio of products, which have the intention of differentiating themselves from their competitors, since this allows them to keep the brand active and innovative in the marketplace, to extend their portfolio of products and to benefit from economies of scale and scope. On the other hand, it would not be advisable for small

companies, since these, by definition, have lower financial resources and, thus, this would lead them to incur extra costs – with the creation, development, launch and communication of the product – that would not be translated into monetary payoffs for the company, since it does not change customers' purchase intention.

5.2 Orange Color

As it was mentioned in the literature review, the orange color is known for stimulating the appetite; for being associated with spontaneous purchasing; vibrancy and fun. However, according to the study results, it does not make the product ideal or the most preferred. When compared with the green package, for instance, the latest is preferred. This can be explained through the fact that the orange color has been studied in a very specific product – Milaneza pasta – and the effect of the color may change across product categories and industries; for not being the original brand color, which makes the products lose part of brand identity; and, finally, for being unavailable in the marketplace, away from the public eye, preventing consumers from developing a connection as strong as the one they developed with the green version.

Thus, it is paramount for a company to make a market research before launching a new product, in order to ensure that, at the end, the right color is chosen. This can be done by asking people for their opinion on a range of colors and by testing different product colors, before making a decision. Concerning color selection, there are several rules that should be taken into account. For instance, colors should comply with brand identity, to allow consumers to easily associate the products with the brand. This is a very relevant issue, since it saves extra communication costs. As it was mentioned in the literature review, people interact with brands, creating an opinion about them. This opinion comes from previous communication campaigns and from the relationship that they have developed with them. Thus, when a brand launches a new product, they automatically create some expectations about it by assuming that it will have

the same performance as the other products from the same brand. In other words, they apply the knowledge they have of brands to each product of that brand. So, if customers cannot easily associate the product with the brand, because of colors, for instance, part of the brand image that the company has built so far is not transferred to this new product, making it lose visibility and power in the marketplace. This gains special importance when referring to brands that are well recognized, such as Milaneza. According to a study performed by Marktest Retail, Milaneza is the brand with more predominance within the branded products in pasta category, by revealing the highest share of shelf in 2013 (Annex IV.), for being the market leader and known by 92% of Portuguese people (Amorim, 2015).

5.3 Colors and Children's Gender

As the results show, there is no significant correlation between color (pink vs. blue) and child gender. Despite having been proved that the majority of products directed to girls are pink and the ones directed to boys are blue, this does not occur in this case, suggesting that the situation differs across product categories. As the observation revealed, in the majority of cases, women/mothers are the ones who shop for groceries. Thus, in the category of pasta, they chose the one which they were more familiarized with, attaching more importance to flavor, texture, price and ease of cooking, than to colors. The color becomes irrelevant, mainly for children, because the child sees the food on the plate, out of the package. Therefore, colors might be more important in non-packaged products and in products which they directly interact with, such as toys and clothes. Moreover, the anthropomorphized package is not placed at children's eye level, on the shelf, thus they do not even notice it, and do not pressure their parents to purchase it.

Companies should bear in mind that the findings taken, concerning colors, come from specific studies and that each case is unique. Therefore, what works for a product category, may

not work for another. This highlights the importance of making market research and testing products before making important decisions. Moreover, the place where the products directed to children are kept, should be accessible to them, and preferably aligned at their eyes level.

5.4 Limitations and Future Research

The present report entails several limitations. Firstly, the representative sample of the questionnaire is only part of a whole, wherefore it is difficult to predict if everyone would act in accordance with those findings. Secondly, one cannot ensure that all the respondents made an effort to answer exactly in accordance with their real feelings and actions, what brings some bias to the results. Third, there are external stimuli that may influence them in the decision making process, and in the point-of-sale, such as: environment influencers (e.g. light, temperature, store appearance, etc.); consumers' involvement (high vs. low); their culture, values and health issues, which force them to define several purchase patterns (e.g. gluten-free people do not buy products with gluten; vegan people do not buy products of animal origin); product category (e.g. there is higher probability of a repeated behavior concerning pleasing products, for example, meeting needs through an appropriate manipulation of price, promotional variables, and distribution) (Rothschild & Gaidis, 1981); discriminative stimulus cues (e.g. models' actions in an advertisement and a company logo); vicarious reinforcing stimulus cues, that is, when someone observes the outcomes of someone else's actions; experiential reinforcing stimulus cues, that is, when consumers learn from the outcomes of their own actions. (Aslin & Rothschild, 1987). All these external factors were not taken into account in this study. Finally, the present business research faced time constraints, which prevented this study on the anthropomorphism technique from being extended to other product categories, brands and colors.

Future research could focus on applying anthropomorphism to different product categories that are more appealing to children (e.g. candies, toys), evaluating their impact on

customer's purchase intention, and applying other colors to this marketing technique, to analyze how attractiveness changes across colors and product categories. It would also be interesting to assess the anthropomorphism in products directed to children, young people, adults and elderly people to evaluate the differences in consumer behavior across these groups.

6. Conclusion

The present report is focused on the study of anthropomorphism, as a marketing technique, applied in the packaging. Colors (green, orange, blue and pink) were studied as a sub-subject. Both topics were studied to learn their influence on purchase intention and on product attractiveness concerning Milaneza pasta. These were also associated with children's gender, in order to understand their influence on parents' purchase intention. The main findings suggest that, although anthropomorphism does not change their purchase intention, it enhances product attractiveness. Furthermore, sex-typed colors and children's gender are not correlated, in pasta category.

7. References

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